Application No. 10/568,650 Amendment dated March 17, 2008 Reply to Office Action of October 16, 2007

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of assessing the cognitive aptitude of a subject to a predetermined task, the method including the steps of:

- (i) <u>simultaneously</u> presenting to the subject <u>one of</u> a group of cognitive tasks <u>and a</u> <u>visual flicker</u>;
- (ii) detecting brain response signals from the subject during presentation of said group of cognitive tasks task and visual flicker;
- (iii) calculating SSVEP amplitude, phase and/or coherence of SSVEP responses elicited by the visual flicker from said brain response signals; and
- (iv) comparing said SSVEP responses to known SSVEP responses obtained from individuals with high and/or low aptitudes to said predetermined task in order to assess the subject's aptitude for said predetermined task.
- 2. (Currently Amended) A method as claimed in claim 1 wherein including the step of presenting said group of cognitive tasks to said individuals in order to obtain said known SSVEP responses and storing said known SSVEP response in a database.
- 3. (Original) A method as claimed in claim 1 or 2 wherein the cognitive tasks are selected so that they place demands on the subject which are similar to demands experienced when carrying out the predetermined task.
- 4. (Original) A method as claimed in claim 3 wherein the cognitive tasks are selected so that they place one or more of the following demands on the subject: attention, analytical thinking, holistic thinking, verbal thinking, visuo-spatial thinking, working memory, recognition memory and identifying emotional expressions.
- 5. (Currently Amended) A method as claimed in any one of claims 1 to 4 claim 1 including the steps of:

repeating the presentation of said cognitive tasks in order to calculate multiple SSVEP responses;

statistically analysing said SSVEP responses in order to determine statistically significant changes in SSVEP amplitude, phase and/or coherence; and

comparing said statistically significant changes to said known SSVEP responses in order to assess the subject's aptitude for said predetermined task.

- 6. (Currently Amended) A method as claimed in any one of claims 1 to 5 claim 1 wherein the step of comparing said SSVEP responses to known SSVEP responses includes the step of assessing the subject's thinking style.
- 7. (Currently Amended) A method as claimed in any one of claims 1 to 6 claim 1 wherein steps (i), (ii) and (iii) are performed at a local site and wherein step (iv) is performed at a remote site.
- 8. (Original) A method as claimed in claim 7 including the step of maintaining a database of said known SSVEP responses at said remote site.
- 9. (Original) A method as claimed in claim 8 including the step of communicating the amplitude, phase and/or coherence SSVEP responses from the local site via the Internet to said remote site.
- 10. (Currently Amended) Apparatus for assessing the cognitive aptitude of a subject to a predetermined task, the apparatus including:
- (i) means for <u>simultaneously</u> presenting to the subject <u>one of</u> a group of cognitive tasks and a visual flicker;
- (ii) means for detecting brain response signals from the subject during presentation of said group of cognitive tasks task and visual flicker;

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(iii) means for calculating SSVEP amplitude, phase and/or coherence of SSVEP responses elicited by the visual flicker from said brain response signals; and

- (iv) means for comparing said SSVEP responses to known SSVEP responses obtained from individuals with high and/or low aptitudes to said predetermined task in order to assess the subject's aptitude for said predetermined task.
- 11. (Original) Apparatus as claimed in claim 10 wherein said means for presenting, said means for detecting and said means for calculating are located at a local site and said means for comparing is located at a remote site and wherein the apparatus includes coupling means for coupling said means for calculating to a communications network for transmitting said SSVEP amplitude, phase and/or coherence responses to said means for comparing via the network.
- 12. (Original) Apparatus as claimed in claim 11 wherein the coupling means includes a modem and the network is the Internet.